

## CLAIMS

- 1) Low resistance air filter device comprising a tubular case (2) for at least a tubular shaped filtering element (3) fixed to a lower opening (9) of the case (2) said device being provided, at its opposite upper opening (10), of outlet means (8) provided with an outflow opening (7) for the air, said device (1) being characterized in that the outlet means (8), at the outflow opening (7) are provided with a trumpet shaped tubular body (11) protruding toward inside of said tubular case (2) and connecting, in flow communication, the inner volume of the tubular case with the outflow opening (7) the same; the inside of the free end of the filtering element (3) being provided with deflecting means (6) provided to forcedly deflect the air flow towards the filter.
- 2) Device according to claim 1 characterized in that the outlet means (8) are formed as a shaped flange integral with the tubular body (11).
- 3) Device according to claim 1 characterized in that the trumpet of the tubular body (11) enlarges towards inside of the device (1).
- 4) Device according to claim 1 characterized in that the trumpet of the tubular body (11) is narrowed toward inside the device (1).
- 5) Device according to claim 1 characterized in that it comprises support means (4) fixed at the lower opening (9) of the case (2) and fit to bind at one inlet opening (5) for the air of the support means (4) the same, said filtering element (3).
- 6) Device according to claim 1 characterized in that says outlet means (8) are peripherally provided of a recess (14) for housing the inside wall of said tubular case (2) at its upper opening (10).
- 7) Device according to claim 1 characterized in that says outlet means (8) are detachably fixed to said tubular case (2) by means of fixing means (15).

- 8) Device according to claim 1 characterized in that says deflecting means (6) are substantially shaped as a cone whose vertex is directed toward the inlet opening (5) and whose base is integral fixed to the free edge of the filtering element 2.
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- 9) Device according to claim 8 substantially characterized in that said almost conic shape of said deflecting means (6) has an axial section shaped as two half-parabolas with parallel axes and joined branches at the vertex of the deflecting means (6) making a concave (6a) or convex (6b) profile.
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- 10) Device according to claim 1 characterized in that says tubular case (2) has an elliptic or oval section.
- 11) Device according to claim 1 characterized in that says tubular case (2) is made of
- 15 carbon fiber.
- 12) Device according to claim 1 characterized in that says filtering element (3) it is in cotton soaked with low viscosity oil.
- 20 13) Device according to claim 1 characterized in that said support means (4) are peripherally provided of a seat (13) for housing the inside wall of said tubular case (2) at its lower opening (9).
- 14) Device according to claim 1 characterized in that said tubular case (2) is detachably
- 25 stopped to said support means (4) through fixing means (14).
- 15) Device according to claim 1 characterized in that said support means (4) are made out of nylon strengthened with glass fiber.
- 30 16) Device according to claim 1 characterized in that says filtering element (3) is cylindrical.

17) Device according to claim 1 characterized in that it includes spacer means (20) positioned between the tubular body (11) and the filtering element (3).

5 18) Device according to claim 19 characterized in that the spacer means (20) matches the inside wall of the tubular case (2).